

#### Barcode scanner



### **Function**

The VB14N-\*\*\*-T-R is a grid scanner for reading 1D barcodes and is specially designed for use at low temperatures. With its high-performance optics and code reconstruction, the barcode scanner offers a high level of reliability when reading 1D barcodes that are difficult to detect. A function key and several LEDs on the barcode scanner provide support when parameterizing, teaching in barcodes, and testing. In live operation, the LEDs provide information about the relevant read status.

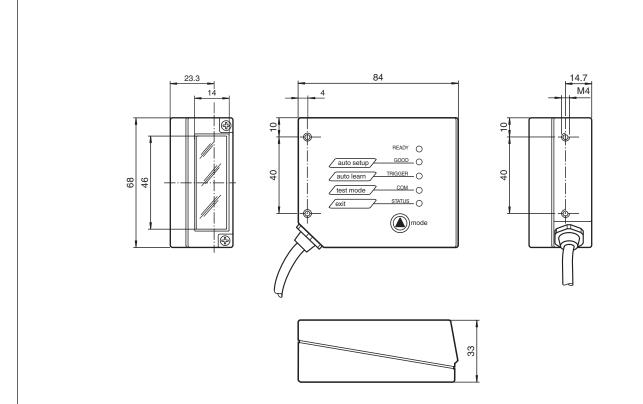
You can establish a high-speed connection between up to 32 devices. This connection enables data to be recorded in a quicker and more efficient manner, without the need for an additional external multiplexer.

The corresponding PC software makes parameterization simple.

Refer to "General Notes Relating to Pepperl+Fuchs Product Information"



### Dimensions



### **Technical Data**

General specifications				
Light source		laser diode		
Light type		modulated visible red light		
Laser nominal ratings				
Note		LASER LIGHT , DO NOT STARE INTO BEAM		
Laser class		2		
Wave length		650 nm		
Beam divergence		< 1.5 mrad		
Pulse length		1.5 ms		
Repetition rate		200 Hz		
max. pulse energy		3.26 µJ		
Scan rate		600 1000 s <sup>-1</sup>		
Read distance		190 600 mm		
Angle of divergence		50 °		
Optical face		front or on side (with deviation mirror)		
Resolution		0.35 mm ( 14 mils )		
Indicators/operating means				
Operation indicator		LED blue: Power on, LED green: Ready to read (READY), LED green: Read successfully (GOOD), LED yellow: External trigger signal pending (TRIGGER), LED yellow: Communication active (COM), LED red: "no read" (STATUS)		
Electrical specifications				
Operating voltage	$U_B$	10 30 V DC		
Power consumption	P <sub>0</sub>	max. 5 W		

Release date: 2020-06-17 Date of issue: 2020-06-17 Filename: 253255\_eng.pdf

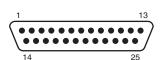
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group www.pepperl-fuchs.com Germany: +49 621 776 1111 fa-info@de.pepperl-fuchs.com Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com

Technical Data			
Interface			
Interface type		serial , RS-232 and RS-485 up to 115.2 kBit/s ID-NET™ up to 1 Mbit/s	
Input 1			
Input type		External triggering	
Output			
Signal output		2, programmable, optocoupled	
Switching voltage		max. 40 V DC	
Switching current		max. 40 mA	
Voltage drop	$U_d$	1 V at load current ≤ 10 mA	
Compliance with standards and directives			
Directive conformity		EMC Directive 2004/108/EC	
Standard conformity			
Noise immunity		EN 61000-6-2:2005	
Emitted interference		EN 55022	
Degree of protection		EN 60529	
Laser class		IEC 60825-1:2007 Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007	
Ambient conditions			
Ambient temperature		-35 45 °C (-31 113 °F)	
Storage temperature		-35 70 °C (-31 158 °F)	
Relative humidity		90 % , noncondensing	
Shock resistance		IEC 68-2-27 Test EA 30G; 11 ms; 3 impacts on each axis	
Vibration resistance		IEC 68-2-6 Test FC 1.5 mm ; 10 55 Hz ; 2 hours on each axis	
Mechanical specifications			
Degree of protection		IP65	
Connection		1 m cable with 25-pin Sub-D connector	
Material			
Housing		Aluminum	
Mass		330 g	

Refer to "General Notes Relating to Pepperl+Fuchs Product Information"

#### Connection

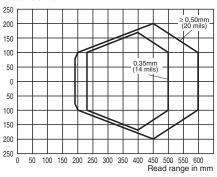


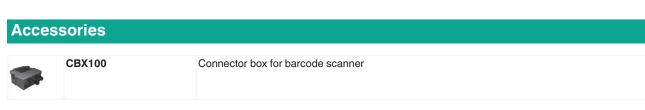
25-pin D-sub connector pinout							
Pin	Name	Function					
9, 13	+UB	Power supply	input voltage +				
25	GND	Power supply input voltage -					
1	GND Chassis	Cable shield connected to chassis					
18	IN TRG + (A)	External Trigg	External Trigger A +				
19	IN TRG - (B)	External Trigg	External Trigger B -				
6	IN 2 + (A)	Input 2 A +	Input 2 A +				
10	IN 2 - (B)	Input 2 B -					
8	OUT 1 +	Output 1 +					
22	OUT 1 -	Output 1 -					
11	OUT 2 +	Output 2 +	Output 2 +				
12	OUT 2 -	Output 2 -	Output 2 -				
20	RX RS232	Auxiliary RS232					
21	TX RS232	Auxiliary RS232					
23	ID +	High speed in	High speed internal network ID-NET +				
24	ID -	High speed internal network ID-NET -					
14, 15, 16, 17	NC	Not connected					
Pin		RS232	RS485 full-duplex	RS485 half-duplex			
2		TX	TX +	RTX +			
3	Main	RX	RX +				
4	interface	RTS	TX -	RTX -			
5	signals	CTS	RX -	0.01/0			
7		SGND	SGND	SGND			

# **Characteristic Curve**

#### Reading characteristics VB14N-600

Read field width in mm





Refer to "General Notes Relating to Pepperl+Fuchs Product Information"

## **Safety Information**



LASERLICHT LASER LIGHT NICHT IN DEN STRAHL BLICKEN DO NOT STARE INTO BEAM LASER KLASSE 2 CLASS 2 LASER PRODUCT

### **Safety Information**

Laser Class 2 Information

The irradiation can lead to irritation especially in a dark environment. Do not point at people!

Caution: Do not look into the beam!

Maintenance and repairs should only be carried out by authorized service personnel!

Attach the device so that the warning is clearly visible and readable.

Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.